

WHAT I CLAIM IS:

1. A simulator for board sports including:

a pair of foot bindings for holding a rider's feet;

a pivoting mount assembly for pivoting both the foot bindings together about a first simulator axis to simulate edge-to-edge roll movement of a board about its longitudinal or roll axis, the pivoting mount assembly including a ground-supported base pivotally connected to a pivoting member to which at least one of the foot bindings is attached for movement toward and away from the other of the foot bindings, and

adjustment means operatively connected to said at least one of the foot bindings for moving said at least one of the foot bindings toward and away from the other of the foot bindings to adjust the spacing between the pair of foot bindings while the rider's feet are held thereby.

2. The simulator of claim 1 wherein said at least one of the foot bindings, or both of the foot bindings, are mounted for sliding movement in a direction substantially parallel to the first simulator axis.

3. The simulator of claim 1 or claim 2 wherein the pivoting mount assembly includes a platform to which the foot bindings are fixed, the platform pivoting about the first simulator axis and simulating a snowboard.

4. The simulator of any preceding claim wherein the first simulator axis is below the foot bindings.

5. The simulator of any preceding claim wherein the pivoting mount assembly

Includes at least one resilient pivot connecting the ground-supported base and pivoting member to provide the pivoting movement about the simulator axis while also biasing a foot-supporting surface of each foot binding toward the horizontal plane.

6. The simulator of claim 5 wherein the pivoting mount assembly includes two elastomeric pivots, at least one of which is mounted for sliding movement parallel to the first simulator axis for movement between a widely spaced position to provide substantially roll movement of the boot bindings about the first axis, and any of one or more closely spaced positions configured for providing an increased degree of pivoting movement of the bindings about mutually orthogonal pitch and yaw axes, both of which are perpendicular to the first simulator axis.

7. The simulator of any preceding claim wherein the adjustment means comprises a screw-type adjustment mechanism connected to the at least one foot binding for sliding the at least one foot binding toward and away from the other of the foot bindings for adjusting the spacing therebetween while the rider's feet are held by the foot bindings.

8. The simulator of claim 7 wherein both the bindings are mounted for linear sliding movement and the adjustment mechanism includes:

a screw threaded adjuster rod having a handle;

a screw block received on the adjuster rod;

sliding blocks connected to the bindings, and

an arm pivotally connected to each sliding block and to the screw block.

9. The simulator of any preceding claim further including means for measuring the spacing between the foot bindings.

10. The simulator of any preceding claim further including an alignment indicating device to assist in aligning the rider's knees vertically with his respective foot.
11. The simulator of claim 8 wherein the alignment indicating device includes a knee-receiving cup fixed to each foot binding, the position of the knee-receiving cup being adjustable to align with the knees of different users, the cup being adjustable in a plane extending orthogonally to a foot-supporting surface of the binding and aligned with the centre of the rider's foot.
12. The simulator of claim 8 or claim 9 wherein the alignment indicating device includes a rod assembly fixed to the binding, extending generally perpendicular to a base of the binding or platform and able to telescope to align vertically with the knees of different height users.
13. The simulator of any preceding claim wherein each foot binding is mounted to the pivoting mount assembly for relative rotation about respective central axes substantially intersecting with and extending orthogonally to the first simulator axis for adjusting the angle between the midline of the foot and the first simulator axis.
14. The simulator of any preceding claim further including a rider's seat.
15. The simulator of claim 12 further including an operator's seat, the rider's seat and operator's seats being fixed on opposing sides of the pivoting mount assembly.
16. A method of determining a rider's stance for board sports, including:  
providing a simulator as claimed in any one of claims 1 to 13;  
fixing both the rider's feet in the foot bindings in an initial narrow stance;

adjusting the spacing between the foot bindings to broaden the rider's stance while the rider attempts to balance about the first simulator axis, and  
measuring the spacing between the foot bindings.

17. The method of claim 14 wherein the simulator further includes an alignment indicating device to assist in aligning the rider's knees vertically with his respective foot, the method including, prior to step d), the further step of: using the alignment indicating device to align the rider's knees vertically with his feet.

18. The method of claim 14 or claim 15 wherein each foot binding is mounted to the pivoting mount assembly for relative rotation about respective central axes substantially intersecting with and extending orthogonally to the first simulator axis, the method including:

rotating each binding about its respective central axis to adjust the angle between the midline of the foot and the first simulator axis, and

measuring the angle between the midline of the foot and the first simulator axis.

19. A simulator substantially as hereinbefore described with reference to and as illustrated in the accompanying drawings.